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WELSH & KATZ, LTD
120 S RIVERSIDE PLAZA
22ND FLOOR
CHICAGO, IL 60606

EXAMINER	
JANVIER, JEAN D	
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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6, 408, 278B1 to Carney discloses a system and method through which targeted programming content (targeted input or advertisement) is delivered for display on a network of electronic out-of-home display devices or display terminals. The network includes a plurality of individually addressable display devices (each display terminal having an address or ID) that are located in public venues, such as airports, shopping centers, transit systems, etc. Demographic data is tracked for the display devices by place and by time so that the programming content can more closely conform to the changing demographic of the targeted audience.

Briefly stated, the present system is directed toward a programming distribution network, comprising a plurality of geographically dispersed display devices that are situated in public places. The display devices (coupled to local workstations or transit servers or computers) are connected to a server computer (host server) by way of a communications network, such as LAN, WAN, the Internet, so that the server computer is programmable to **select a specific one** of the plurality of geographically dispersed display devices and deliver thereto programming, such as targeted advertising, for display on that display device or display terminal.

Moreover, the system can be used to identify and display from a prescribed set of programming material a subset of the programming material for display at each of the display devices **so that different display devices display different programming at any given time and the programming material displayed on each display device is dynamically updateable (each individual display terminal displaying different content)**. Particular display devices are

identified on the basis of a target audience for each set of programming material. Further, each display device is at a known location (based on its ID), and further has associated demographic information based on that device's location. The demographic information (display conditions) associated with each display device may change independently based on predicted changes in the target audience as a function of time.

According to a further aspect of the system, the network of display devices can be coupled to an inventory supply system that tracks inventory for a product or service. As a result, the network can change the programming on selected display devices (group of display terminals) as a function of inventory levels. Accordingly, when an inventory system indicates inventory above a predefined level at a particular location, programming can be display on selected display devices that is indicative of the product (displaying product information regarding a specific product on all display units within a group in a particular location).

(See abstract; col. 1: 41 to col. 2: 6; col. 3: 5-47).

Indeed, an important aspect of the system or network is that a display device 14 of fig. 1 is an out-of-home electronic display device. As such, it is most likely located in a public venue such as a shopping center, Public Park, stadium, airport, rail transit station, bus station or other transit center, amusement park or other entertainment venue, convention center, and any other high traffic public place. **Display device 14 is preferably a large viewing area device that is capable of displaying full motion video, static images, animated images, and text (display unit capability)**. **For example, the display device could comprise a plasma display device**

such as NEC Plasma Sync, a video wall of monitors, an electronic billboard, and so on (display type).

Furthermore, in the embodiment shown in fig. 2, a plurality of display devices 14a-14n are located at geographically dispersed out-of-home locations 12a-12n. The geographically dispersed display devices 14a-14n are accessible from **host** server 20 by way of an Internet connection 22. As such, server 20 can selectively point cast customized programming content (input) out to display devices 14a-14n (to group of display terminals). In other words, at any given time, server 20 can control the programming content addressed to display device 14a, for example, while separately controlling the programming content addressed to display device 14n. Here, display devices 14a ….14n, coupled to transit servers 12a…12n, are in communication with server computer 20 by way of Internet based connections and receive targeted content from the host server 20. At locations 12a…12n, respective display devices 14a…14n are viewable by a target audience that may demographically vary as a function of time (targeting an audience based on display conditions such as location and time of display). For example, out-of-home display device 14a is located in venue 12a and is viewable by audience 16aa having a first demographic (e.g., males in the age range of 15-19) and audience 16ab having a second demographic (e.g., females in the age range of 35-45), and audience 16ac having a third demographic (e.g., families). The demographic for each audience may change over time throughout a given day, throughout a given week, throughout a given month, and so on. For example, early afternoon traffic at a mall may comprise a large population of school-age children while evenings and weekends may comprise complete families **(and an advertiser may be charged a fee to display his advertising message on display 14a based on such potential**

viewing population or audience). According to an aspect of the system, database 18'a of transit server 12a maintains information indicative of the demographic changes associated with a given display device 14a by, for example collecting and maintaining historical demographic information. The demographic information is then accessible to host server computer 20 so that the programming content for a given display device can be adjusted **or updated** to conform with the **probable** demographic of the changing viewer composition or characteristics (deleting or replacing a stored content based on the changing profile of the target audience) **(and an advertiser may be charged a fee to display his advertising message on display 14a based on such potential or probable viewing population or audience)**.

Additionally, clients or advertisers or advertising agencies, e.g., clients a-m of fig. 2, can access host server computer 20 via computers 24a-24m, respectively, to place programming content on selected display devices 14a-14n that closely matches the demographic of likely consumers of the content of their programming. For instance, **an advertisement targeted at a young male audience can be displayed on selected display devices, 14a-14n (displaying a targeted ad to a group of display devices)**, only at a time and day when the audience (16aa, 16ab, 16ac-16na, 16nb, 16nc) contains a desired demographic mix (i.e. a sufficient number of young males so that the advertisement is likely to generate interest in the viewing audience **and charge the advertiser an advertising fee based on such potential or probable audience or target market**). Similarly, display devices 14a-14n not having a sufficient audience of young males at a given time can be avoided **(do not display input on display terminals if the display conditions are not met).**

Col. 5: 18 to col. 9: 21 and figs. 1-9.

Furthermore, Carney discloses, as depicted in fig. 8, next, (step 104), that the system will search databases 18, 18', etc **(a database for storing audience or user profiles in conjunction with or with respect to specific display locations)**, to determine appropriate display devices (consumer interfaces) based on the criteria entered in the previous step or criteria specified by an interested advertiser or client or merchant. The system compares the requirements or specifications inputted by the client or advertiser to the available demographics of particular display devices (comparing the client or advertiser/merchant criteria to the audience or user profiles to determine matches or opportunities to present the advertiser's messages or merchant's offers to a plurality of users via a plurality of targeted consumer interfaces) (e.g., in database 18') and available display device time slot inventory (e.g., database 19) (step 104a). Subsequent to the matching process, a recommendation of display devices or consumer interfaces (related to particular audience or users) for display of programming or advertising messages is then recommended (step 104b) (fig. 8; col. 8: 66 to col. 9: 7).

In general, Carney discloses a system for gathering **or collecting**

demographic data (profile data) from an audience, a plurality of view ewers or a group(s) of consumers and for storing the gathered/collected profile data in a consumer database (fig. 4). In fact, fig. 4 features a display device 14b located in a public venue 12b. Individual viewers 16'a, 16'b up to 16'n (group of consumers) are in the vicinity of display device 14b. Data gathering device 32b has been located proximate display device 14b to collect data regarding the demographics **and so on of those viewers or audience of (accessing) display device 14b** (collecting, among other things, profile data from a group of consumers to be stored in a database where the profile data can be accessed by merchants or advertisers seeking

to draft or craft and present targeted offers or advertisements to a plurality of or a group of viewers or audience based on profile matching process). **For example, data gathering device 32b could be a kiosk that provides audience members 16b and 16'b with access to the Internet in exchange for demographics information (profile data), which is recorded and maintained/stored in database 18'b, which is then accessible to server computer 20 and made available to merchants or interesting advertisers (See FIG. 1 and accompanying description).** Moreover, other data gathering devices 32 for gathering demographic information in the vicinity of display device can be used to accomplish a similar purpose, i.e. **collecting profile data from viewers or a group of consumers**. For example, a camera could be used to capture an audience at a given time and process the image to determine demographic make-up of the audience; **shopping bags could be dispensed in exchange for demographic information; a free or fee-reduced Automatic Teller Machine could gather demographics data from ATM users in exchange for reduced ATM fees for accessing third-party ATM machine** and so on. **Furthermore, passers-by (group of users) could transfer personal demographic information from cellular telephones, personal digital assistants or PDAs and credit cards to database 18'd using cellular communications, radio frequency, infrared communications, and magnetic card readers**. The common feature of each data gathering device 32b is that it provides data points about the probable demographic make-up of a viewing audience for a given time and a given location, which is accessible to server computer 20 (col. 6: 49 to col. 7:11). Additionally, an interactive data gathering device 32b, such as a kiosk, also provides the viewer with a mechanism to provide immediate feedback such that a viewer seeing programming content advertising a product or service (an advertisement) can immediately access

an on-line store to purchase the featured product or service or to find or receive therefrom further information (col. 7:12-17).

In addition, the present system can be applied to reduce inventory build-up at particular locations **related to particular merchants or advertisers**. Here, **by implementing the present system or applying the teachings of the said system, a merchant or advertiser can** precisely target an audience **or a group of consumers l**ikely to purchase a particular product or service from a particular location **of the merchant, while effectively advertising in a broader market area**. Drafting, storing in a database, and selecting therefrom targeted, customized or personalized programming content or offers or advertisements to be presented over display devices 14, proximate travel centers wherein travelers are destined for location D, where the offers or advertisements (programming content) are being accessed by a geographically dispersed audience of the inventory in location D. For example, a display device proximate an airport gate having a flight destined for location D could run targeted programming content or offers during times proximate the departure to location D. Thereafter, the programming content on display device 14 would change to reflect that the audience demographics have changed from a demographics associated with location D. In this way, client A or merchant or advertiser would only need to purchase programming time during the specific times when the target viewers would likely have a connection with location D (col. 7: 20-39 and 40-63).

FIG. 8 describes a process 20' for placing programming content or offers on server computer 20 for delivery to selected display devices 14. Initially, the process starts by accessing by a client or merchant or advertiser a web site (step 100) over the Internet. From the web site, the client can place new targeted programming content or offers on the network of display

devices by filling out a form describing important parameters such as target audience demographics or profile information (step 102). (col. 8: 47-53; figs. 8 and 9)

Additionally, in FIG. 9, the client or merchant has selected the option of placing a new ad by selecting button 52. In drop down box 54, the client selects the subject of the programming or offer (here an ad) and the preferred venues in drop down box 56. In this example, the client has selected automobiles as the subject matter and amusement parks as the preferred venue category. Next, the client selects the demographic (e.g., age and sex) of the target audience with buttons 58 and 60. The example form 50 also shows an input for budget 62, region for display (e.g., select regions or countries) 64, and time-and-day of week 68, 66 (scheduling) respectively related to the new programming content or offer (col. 8: 54-65).

Carney also discloses, as depicted in fig. 8, next, (step 104), that the system will next search databases 18, 18', etc **(a database, inter alia, storing audience or user profiles)**, to determine appropriate display devices based on the criteria entered by the client or merchant or advertiser in the previous step as depicted in fig. 9 and in its associated embodiment or description. Here, the system compares the requirements or specifications input by the client or advertiser to the available demographics of particular display devices or profile data corresponding to the related audience (stored, for instance, in database 18') and available display device time slot inventory (e.g., in database 19) (step 104a) (comparing the client or advertiser criteria to the audience or user profiles to determine matches or opportunities to present the advertiser's messages or client's targeted programming content to a plurality of users). Subsequent to the matching process, a recommendation of display devices (related to particular

audience or users) for display of programming content or targeted advertising messages is then recommended to the client or advertiser or merchant (step 104b) (fig. 8; col. 8: 66 to col. 9: 7).

More importantly, as depicted in fig. 8, the cost and selection of the programming content or offer (ad) distribution, related to the client (merchant or advertiser), will be displayed so that the client or merchant, via a merchant interface, will have a chance to revise or accept the programming distribution placement subsequent to the matching process (allowing a merchant or advertiser, via a merchant interface, to revise a cost estimate, which is automatically being calculated, computed or recalculated, and programming content or offer, subsequent to assemble or draft or craft such offer or programming content via the merchant's interface over a communication network or the Internet, based on a matching process). If the client or merchant accepts the programming distribution placement (and the cost for distributing it to the target audience at the particular locations), the client next assembles, creates or crafts the programming content or offer (step 106). Preferably, templates are provided to step the client or merchant through the content/offer assembly process (step 108). The templates preferably provide various programming layout alternatives including full motion video, still frame, text, and so on, wherein the client or merchant can insert the appropriate material or develop it on-line. After the content or offer is assembled, the client has an opportunity to review the content (step 110). After the client is satisfied with the content, an order is submitted and the programming is placed or stored on the network for access or display to users or audience via display devices or consumer interfaces (drafting or crafting, via a merchant interface, at least one offer based on a matching between the merchant's criteria and the

target audience profiles in conjunction with the display devices locations, receiving a cost estimate and storing the drafted or crafted offer in a database coupled to a server for later retrieval and display on the particular display devices or access by the target audience or viewers via consumer interfaces or display devices at specific locations in accordance with a scheduling process). (Step 112) (col. 9: 8-22).

In short, Carney discloses a system wherein a merchant or advertiser creates, over an interface, at least one targeted advertisement or offer based on the audience profile (user profile) including the display device locations, while revising the created/crafted offer/advertisement and the cost (cost estimate), being calculated or recalculated, for displaying such an offer to the audience via the display devices or consumer interfaces. It is herein understood that, in Carney, the merchant or advertiser can revise a cost (cost estimate) by modifying a crafted offer-content and/or the profile of the targeted audience (with respect to the display device location information). And the latter process can repeat it itself. ("wherein said merchant interface allows the merchant to iteratively revise the targeted offer by the modifying the selected characteristics of the targeted offer and to revise the cost estimate for distributing the targeted offer based on matching the information in said stored user profiles with the selected characteristics of each modified targeted offer")

/Jean Janvier/

Primary Examiner, Art Unit 3688